

CLAIMS

1. A coated article comprising a coating supported by a glass substrate, the coating comprising:
 - a first dielectric layer;
 - a first infrared (IR) reflecting layer comprising silver located over at least the dielectric layer;
 - a first layer comprising silicon nitride located over at least the first IR reflecting layer and the first dielectric layer;
 - a first layer comprising tin oxide located over and contacting the first layer comprising silicon nitride;
 - a first layer comprising zinc oxide located over and contacting the first layer comprising tin oxide, so that the first layer comprising tin oxide is located between and contacting the first layer comprising silicon nitride and the first layer comprising zinc oxide;
 - a second IR reflecting layer comprising silver located over and contacting the first layer comprising zinc oxide; and
 - at least another dielectric layer located over at least the second IR reflecting layer.
2. The coated article of claim 1, further comprising a second layer comprising zinc oxide that is located under and contacting the first IR reflecting layer, and wherein at least one of the first and second layers comprising zinc oxide further comprises aluminum.
3. The coated article of claim 1, wherein the coated article is heat treated.
4. The coated article of claim 1, further comprising a second layer comprising tin oxide located under and contacting the first layer comprising silicon nitride.

5. The coated article of claim 1, wherein the first dielectric layer comprises at least one of silicon nitride and titanium oxide
6. The coated article of claim 1, wherein the first dielectric layer comprises silicon nitride, and said another dielectric layer also comprises silicon nitride.
7. The coated article of claim 1, wherein the first layer comprising silicon nitride is Si-rich so as to be represented by Si_xN_y , where x/y is from 0.8 to 1.4.
8. The coated article of claim 1, wherein the coated article comprises a heat treated glass substrate which supports the coating, and when measured monolithically following heat treatment has a visible transmission of at least 75% and a sheet resistance (R_s) of less than or equal to 3.0 ohms/square.
9. The coated article of claim 1, wherein the coated article comprises a heat treated glass substrate which supports the coating, and when measured monolithically following heat treatment has a visible transmission of at least 77% and a sheet resistance (R_s) of less than or equal to 2.5 ohms/square.
10. The coated article of claim 1, wherein the coated article comprises a heat treated glass substrate which supports the coating, and when measured monolithically following heat treatment has a visible transmission of at least 78% and a sheet resistance (R_s) of less than or equal to 2.1 ohms/square.
11. The coated article of claim 1, wherein the coated article is an IG window unit having a visible transmission of at least 60%, and a SHGC value of less than or equal to 0.40.

12. A coated article comprising a coating supported by a glass substrate, the coating comprising from the glass substrate outwardly:

a layer comprising silicon nitride;

a layer comprising tin oxide located over and contacting the layer comprising silicon nitride;

a layer comprising zinc oxide located over and contacting the layer comprising tin oxide, so that the layer comprising tin oxide is located between and contacting the layer comprising silicon nitride and the layer comprising zinc oxide;

an infrared (IR) reflecting layer located over and contacting the layer comprising zinc oxide; and

at least another dielectric layer located over at least the IR reflecting layer.

13. The coated article of claim 12, further comprising another IR reflecting layer and another layer comprising zinc oxide, wherein the another IR reflecting layer is located directly on and contacting the another layer comprising zinc oxide.

14. The coated article of claim 12, wherein the coated article is heat treated.

15. The coated article of claim 12, further comprising another layer comprising tin oxide located under and contacting the layer comprising silicon nitride.

16. The coated article of claim 12, wherein said at least another dielectric layer comprises at least one of silicon nitride and tin oxide.

17. The coated article of claim 12, wherein the layer comprising silicon nitride is Si-rich so as to be represented by Si_xN_y , where x/y is from 0.8 to 1.4.

18. The coated article of claim 12, wherein the coated article comprises a heat treated glass substrate which supports the coating, and when measured monolithically following heat treatment has a visible transmission of at least 75% and a sheet resistance (R_s) of less than or equal to 3.0 ohms/square.

19. The coated article of claim 12, wherein the coated article comprises a heat treated glass substrate which supports the coating, and when measured monolithically following heat treatment has a visible transmission of at least 77% and a sheet resistance (R_s) of less than or equal to 2.5 ohms/square.

20. The coated article of claim 12, wherein the coated article comprises a heat treated glass substrate which supports the coating, and when measured monolithically following heat treatment has a visible transmission of at least 78% and a sheet resistance (R_s) of less than or equal to 2.1 ohms/square.

21. The coated article of claim 12, wherein the coated article is an IG window unit having a visible transmission of at least 60%, and a SHGC value of less than or equal to 0.40.

22. A coated article including a coating supported by a glass substrate, the coating comprising from the glass substrate outwardly:

first and second IR reflecting layers comprising silver;

at least one of said IR reflecting layers being provided directly on and contacting a layer comprising zinc oxide,

wherein said layer comprising zinc oxide is located directly on and contacting a layer comprising tin oxide; and

wherein the coated article is capable of being heat treated for 18 minutes at a furnace temperature of about 650 degrees C without realizing a visible

transmission decrease of more than 1% from the 8 minute mark to the 18 minute mark of such heat treatment, measured monolithically.

23. The coated article of claim 22, wherein the coated article is capable of being heat treated for 18 minutes at a furnace temperature of about 650 degrees C without realizing any visible transmission decrease from the 8 minute mark to the 18 minute mark of such heat treatment, measured monolithically.

24. The coated article of claim 22, wherein the coated article is capable of being heat treated for 18 minutes at a furnace temperature of about 650 degrees C without realizing a visible b* color value shift of more than 1.0 from the 8 minute mark to the 18 minute mark of such heat treatment, measured monolithically.

25. The coated article of claim 22, wherein the coated article is capable of being heat treated for 18 minutes at a furnace temperature of about 650 degrees C without realizing a visible b* color value shift of more than 0.5 from the 8 minute mark to the 18 minute mark of such heat treatment, measured monolithically.

26. The coated article of claim 22, wherein the coated article is capable of being heat treated for 18 minutes at a furnace temperature of about 650 degrees C without realizing a visible b* color value shift of more than 0.5 from the 8 minute mark to the 18 minute mark of such heat treatment, measured monolithically.

27. The coated article of claim 22, wherein the coated article is capable of being heat treated for 18 minutes at a furnace temperature of about 650 degrees C without realizing a sheet resistance increase of more than 0.1 ohms/square from the 8 minute mark to the 18 minute mark of such heat treatment, measured monolithically.

28. The coated article of claim 22, wherein the coated article is capable of being heat treated for 18 minutes at a furnace temperature of about 650 degrees C without realizing a sheet resistance increase from the 8 minute mark to the 18 minute mark of such heat treatment, measured monolithically.

29. The coated article of claim 22, wherein the coated article is capable of being heat treated for 18 minutes at a furnace temperature of about 650 degrees C without realizing a transmitted haze value of more than 0.5 following such heat treatment.

30. A coated article including:

a coating supported by a glass substrate, wherein the coating comprises first and second IR reflecting layers comprising silver which are spaced apart from one another by at least one layer comprising tin oxide, and

wherein the coated article is capable of being heat treated for 18 minutes at a furnace temperature of about 650 degrees C without realizing a sheet resistance increase of more than 0.1 ohms/square from the 8 minute mark to the 18 minute mark of such heat treatment, measured monolithically.

31. The coated article of claim 30, wherein the coated article is capable of being heat treated for 18 minutes at a furnace temperature of about 650 degrees C without realizing a sheet resistance increase from the 8 minute mark to the 18 minute mark of such heat treatment, measured monolithically.

32. The coated article of claim 30, wherein the coated article is capable of being heat treated for 18 minutes at a furnace temperature of about 650 degrees C without realizing a visible transmission decrease of more than 1% from the 8 minute mark to the 18 minute mark of such heat treatment, measured monolithically, due to such heat treatment.

33. The coated article of claim 30, wherein said layer comprising tin oxide is located between and contacting a layer comprising silicon nitride and a layer comprising zinc oxide.

34. The coated article of claim 33, wherein one of said IR reflecting layers is located on and contacting said layer comprising zinc oxide.

35. A coated article including:
a coating supported by a glass substrate, wherein the coating comprises first and second IR reflecting layers comprising silver which are spaced apart from one another by at least one layer comprising tin oxide, and
wherein the coated article is capable of being heat treated at a furnace temperature of about 650 degrees C for 12 minutes, and realizing at least one of the following due to such heat treatment: (a) a visible transmission that does not decrease between the 8 and 12 minute marks of such heat treatment; (b) a transmissive b^* value which does not change by more than 0.5 from the 8 minute mark to the 12 minute mark of such heat treatment; and (c) a sheet resistance in units of ohms/square which does not increase from the 8 minute mark to the 12 minute mark of such heat treatment.

36. The coated article of claim 35, wherein said layer comprising tin oxide is located between and contacting a layer comprising silicon nitride and a layer comprising zinc oxide.

37. A coated article comprising a coating supported by a glass substrate, the coating comprising:
a first dielectric layer;
a first infrared (IR) reflecting layer comprising silver located over at

least the dielectric layer;

a first layer comprising silicon nitride located over at least the first IR reflecting layer and the first dielectric layer;

a first layer comprising a metal oxide located over and contacting the first layer comprising silicon nitride;

a first layer comprising zinc oxide located over and contacting the first layer comprising the metal oxide, so that the first layer comprising the metal oxide is located between and contacting the first layer comprising silicon nitride and the first layer comprising zinc oxide;

a second IR reflecting layer comprising silver located over and contacting the first layer comprising zinc oxide; and

at least another dielectric layer located over at least the second IR reflecting layer.

38. The coated article of claim 37, further comprising a second layer comprising zinc oxide that is located under and contacting the first IR reflecting layer, and wherein at least one of the first and second layers comprising zinc oxide further comprises aluminum.

39. The coated article of claim 37, wherein the coated article is heat treated.

40. The coated article of claim 37, wherein the layer comprising the metal oxide is a layer consisting essentially of tin oxide.